ABSTRACT

Methods and apparatuses are provided that allow kernel mode data traffic and user mode data traffic to share a common network communication port. One apparatus includes user mode logic, kernel mode logic, and kernel mode to user mode interface logic. The interface logic is configured to receive data packets and selectively distribute the data packet to either the user mode or kernel mode logic. The interface logic includes "virtual" bridge logic and "virtual" miniport logic. The bridge logic determines if a received data packet is a user mode or kernel mode data packet. If it is a kernel mode data packet, then the bridge logic provides the data packet to the kernel mode logic. If it is a user mode data packet, then the bridge logic stores the data packet in memory for subsequent use by the user mode logic. The bridge logic also receives outgoing kernel mode data packets from the kernel mode logic and provides them to a network communication port, and retrieves outgoing user mode data packets from memory and provides them to the same network communication port. The miniport logic provides an interface between the memory accessed by the bridge logic and user mode logic. The miniport logic accepts outgoing user mode data packets and stores them in the memory for subsequent access by the bridge logic, and retrieves incoming user mode data packets stored in memory by the bridge logic.